

Pending Claims After The Entering Of The Above Amendments

1. (Amended) A marking composition, comprising:
a polymer first material comprising silicon; and
a second material capable of extending polymeric chains of the first material,
wherein the first material comprises a phenyl methyl silicone resin and the weight ratio of
phenyl to methyl groups is between about 0.4:1 and 2.1:1, and
the marking composition is capable of undergoing a change that can be detected optically
when the composition is contacted with energy.
2. The composition of claim 1, wherein the second material is capable of
crosslinking with the first material.
3. The composition of claim 1, wherein the second material comprises a polyol.
4. The composition of claim 1, wherein the second material is selected from a group
consisting of a diol and a triol.
5. - 8. Canceled.
9. The composition of claim 1, further comprising a crosslinking agent.
10. The composition of claim 9, wherein the crosslinking agent comprises a silane.
11. (Twice amended) A marking composition, comprising:
a polymer first material comprising silicon;
a second material capable of extending polymeric chains of the first material; and
a blocked, catalytic crosslinking agent,
wherein the marking composition is capable of undergoing a change that can be detected
optically when the composition is contacted with energy.
12. The composition of claim 11, wherein the blocked crosslinking agent comprises a
carbamate.
13. The composition of claim 1, further comprising a catalyst.
14. The composition of claim 13, wherein the catalyst is selected from a group
consisting of a platinum-based catalyst, a zinc-based catalyst, and a Lewis acid.
15. (Amended) A marking composition, comprising:
a polymer first material comprising silicon;
a second material capable of extending polymeric chains of the first material; and
an optical tag,
wherein the marking composition is capable of undergoing a change that can be detected
optically when the composition is contacted with energy.

16. (Twice amended) A marking composition, comprising:
a polymer silicone resin; and
a blocked, catalytic crosslinking agent capable of crosslinking with the resin,
wherein the marking composition is capable of undergoing a change that can be detected
optically when the composition is contacted with energy.
17. Canceled.
18. The composition of claim 16, wherein the resin comprises a combined aromatic
and aliphatic substituted silicone resin.
19. The composition of claim 16, wherein the resin comprises a phenyl methyl
silicone resin.
20. The composition of claim 19, wherein the ratio of phenyl to methyl groups is
between about 0.4:1 and 2.1:1.
21. Canceled.
22. Canceled.
23. (Amended) The composition of claim 16, wherein the crosslinking agent
comprises a carbamate.
24. The composition of claim 16, further comprising a catalyst.
25. The composition of claim 24, wherein the catalyst is selected from a group
consisting of platinum-based catalyst and zinc-based catalyst.
26. (Amended) The composition of claim 16, comprising
about 10 to about 90 percent of the resin; and
about 0.1 to about 9 percent of the crosslinking agent.
27. - 34. Canceled
35. (Amended) An article, comprising:
a substrate; and
a marking composition on the substrate, the composition comprising:
a polymer first material comprising silicon; and
a second material capable of extending polymeric chains of the first material,
wherein the first material comprises a phenyl methyl silicone resin and the weight ratio of
phenyl to methyl groups is between about 0.4:1 and 2.1:1, and

the marking composition is capable of undergoing a change that can be detected optically when the composition is contacted with energy.

36. The article of claim 35, wherein the second material is capable of crosslinking with the first material.

37. The article of claim 35, wherein the second material comprises a polyol.

38. The article of claim 35, wherein the second material is selected from a group consisting of a diol and a triol.

39. – 42. Canceled.

43. (Amended) The article of claim 35, wherein the composition further comprises a crosslinking agent.

44. The article of claim 43, wherein the crosslinking agent comprises a silane.

45. (Twice amended) An article, comprising:
a substrate; and
a marking composition on the substrate, the composition comprising
a polymer first material comprising silicon;
a second material capable of extending polymeric chains of the first material; and
a blocked, catalytic crosslinking agent,
wherein the marking composition is capable of undergoing a change that can be detected optically when the composition is contacted with energy.

46. The article of claim 45, wherein the blocked crosslinking agent comprises a carbamate.

47. (Amended) The article of claim 35, wherein the composition further comprises a catalyst.

48. The article of claim 47, wherein the catalyst is selected from a group consisting of a platinum-based catalyst, a zinc-based catalyst, and a Lewis acid.

49. (Amended) An article, comprising:
a substrate; and
a marking composition on the substrate, the composition comprising
a polymer first material comprising silicon;
a second material capable of extending polymeric chains of the first material; and
an optical tag,
wherein the marking composition is capable of undergoing a change that can be detected optically when the composition is contacted with energy.

50. The article of claim 35, wherein the substrate comprises a metal.
51. The article of claim 35, wherein the substrate is a beverage can.
52. The composition of claim 11, wherein the second material is capable of crosslinking with the first material.
53. The composition of claim 11, wherein the second material comprises a polyol.
54. The composition of claim 11, wherein the second material is selected from a group consisting of a diol and a triol.
55. The composition of claim 11, wherein the first material comprises a silicone resin.
56. The composition of claim 11, wherein the first material comprises a combined aromatic and aliphatic substituted silicone resin.
57. The composition of claim 11, wherein the first material comprises a phenyl methyl silicone resin.
58. The composition of claim 57, wherein the weight ratio of phenyl to methyl groups is between about 0.4:1 and 2.1:1.
59. The composition of claim 11, further comprising a catalyst.
60. The composition of claim 59, wherein the catalyst is selected from a group consisting of a platinum-based catalyst, a zinc-based catalyst and a Lewis acid.
61. The composition of claim 15, wherein the second material is capable of crosslinking with the first material.
62. The composition of claim 15, wherein the second material comprises a polyol.
63. The composition of claim 15, wherein the second material is selected from a group consisting of a diol and a triol.
64. The composition of claim 15, wherein the first material comprises a silicone resin.
65. The composition of claim 15, wherein the first material comprises a combined aromatic and aliphatic substituted silicone resin.
66. The composition of claim 15, wherein the first material comprises a phenyl methyl silicone resin.

67. The composition of claim 66, wherein the weight ratio of phenyl to methyl groups is between about 0.4:1 and 2.1:1.
68. The composition of claim 15, further comprising a crosslinking agent.
69. The composition of claim 68, wherein the crosslinking agent comprises a silane.
70. The composition of claim 15, further comprising a catalyst.
71. The composition of claim 70, wherein the catalyst is selected from a group consisting of a platinum-based catalyst, a zinc-based catalyst, and a Lewis acid.
72. The composition of claim 45, wherein the second material is capable of crosslinking with the first material.
73. The composition of claim 45, wherein the second material comprises a polyol.
74. The composition of claim 45, wherein the second material is selected from a group consisting of a diol and a triol.
75. The composition of claim 45, wherein the first material comprises a silicone resin.
76. The composition of claim 45, wherein the first material comprises a combined aromatic and aliphatic substituted silicone resin.
77. The composition of claim 45, wherein the first material comprises a phenyl methyl silicone resin.
78. The composition of claim 77, wherein the weight ratio of phenyl to methyl groups is between about 0.4:1 and 2.1:1.
79. The composition of claim 45 further comprising a catalyst.
80. The composition of claim 79, wherein the catalyst is selected from a group consisting of a platinum-based catalyst, a zinc-based catalyst and a Lewis acid.
81. A marking composition, comprising:
a polymer first material comprising a phenyl methyl silicone resin, the weight ratio of phenyl to methyl groups being between about 0.4:1 and 2.1:1; and
a crosslinking agent,
wherein the marking composition is capable of undergoing a change that can be detected optically when the composition is contacted with energy.

82. The composition of claim 81, wherein the crosslinking agent comprises a silane.
83. The composition of claim 81, further comprising a blocked crosslinking agent.
84. The composition of claim 83, wherein the blocked crosslinking agent comprises a carbamate.
85. The composition of claim 81, further comprising a catalyst.
86. The composition of claim 85, wherein the catalyst is selected from a group consisting of a platinum-based catalyst, a zinc-based catalyst, and a Lewis acid.
87. The composition of claim 15, wherein the optical tag comprises 2,2'-(2,5-thiophenediyl)bis[5-tert-butylbenzoxazole].
88. (Amended) The article of claim 49, wherein the optical tag comprises 2,2'-(2,5-thiophenediyl)bis[5-tert-butylbenzoxazole].
89. (New) The composition of claim 11, wherein the crosslinking agent is capable of deblocking to form an amine.
90. (New) The composition of claim 11, wherein the crosslinking agent comprises a silane.
91. (New) The composition of claim 16, wherein the crosslinking agent is capable of deblocking to form an amine.
92. (New) The composition of claim 16, wherein the crosslinking agent comprises a silane.
93. (New) The composition of claim 45, wherein the crosslinking agent is capable of deblocking to form an amine.
94. (New) The composition of claim 45, wherein the crosslinking agent comprises a silane.